

**Cooling mode:**

Information requirements for air-to-air conditioners								
Model(s): SDV4-140EAA Test matching indoor units from 2, non-duct: 2×SDV4-40CAF* + 2×SDV4-28CAF*								
Outdoor side heat exchanger of air conditioner: air								
Indoor side heat exchanger of air conditioner: air								
Type: compressor driven								
If applicable: driver of compressor: electric motor								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	14	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	233.8	%
Declared cooling capacity for part load at given outdoor temperatures $T_j$ and indoor 27/19°C (dry/wet bulb)					Declared energy efficiency ratio or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures $T_j$			
$T_j=+35^\circ\text{C}$	$P_{dc}$	14.000	kW		$T_j=+35^\circ\text{C}$	$EER_d$	2.87	-
$T_j=+30^\circ\text{C}$	$P_{dc}$	10.016	kW		$T_j=+30^\circ\text{C}$	$EER_d$	4.69	-
$T_j=+25^\circ\text{C}$	$P_{dc}$	6.629	kW		$T_j=+25^\circ\text{C}$	$EER_d$	7.53	-
$T_j=+20^\circ\text{C}$	$P_{dc}$	5.176	kW		$T_j=+20^\circ\text{C}$	$EER_d$	10.19	-
Degradation co-efficient for air conditioners(*)								
	$C_{dc}$	0.25	-					
Power consumption in modes other than "active mode"								
Off mode	$P_{OFF}$	0.023	kW		Crankcase heater mode	$P_{CK}$	0.023	kW
Thermostat-off mode	$P_{TO}$	0	kW		Standby mode	$P_{SB}$	0.023	kW
Other items								
Capacity control	variable				For air-to-air air conditioner: air flow rate, outdoor measured	-	6500	m <sup>3</sup> /h
Sound power level, outdoor	$L_{WA}$	73	dB					
GWP of the refrigerant		2088	kg CO <sub>2</sub> eq (100years)					
Contact details: Manufacturer: SINCLAIR Corp. Ltd., 1-4 Argyll St., London, UK info@sinclair-eu.com / www.sinclair-eu.com								
(*) If $C_{dc}$ is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25								
Where information relates to multi-split air conditioners, the test result and performance data may be obtained on the basis of performance of the outdoor unit, with a combination of indoor unit(s) recommended by the manufacturer or importer								

**Heating mode:**

Information requirements for air-to-air conditioners								
Model(s): SDV4-140EAA								
Test matching indoor units from 2, non-duct: 2×SDV4-40CAF* + 2×SDV4-28CAF*								
Outdoor side heat exchanger of air conditioner: air								
Indoor side heat exchanger of air conditioner: air								
Indication if the heater is equipped with a supplementary heater: no								
If applicable: driver of compressor: electric motor								
Parameters shall be declared for the average heating season, parameters for the warmer and colder heating seasons are optional								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	$P_{rated,h}$	15.4	kW		Seasonal space heating energy efficiency	$\eta_{s,h}$	151.4	%
Declared heating capacity for part load at indoor temperature 20°C and outdoor temperatures $T_j$					Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures $T_j$			
$T_j = -7^\circ\text{C}$	$P_{dh}$	8.067	kW		$T_j = -7^\circ\text{C}$	$COP_d$	2.27	-
$T_j = +2^\circ\text{C}$	$P_{dh}$	4.917	kW		$T_j = +2^\circ\text{C}$	$COP_d$	3.87	-
$T_j = +7^\circ\text{C}$	$P_{dh}$	3.399	kW		$T_j = +7^\circ\text{C}$	$COP_d$	5.27	-
$T_j = +12^\circ\text{C}$	$P_{dh}$	3.654	kW		$T_j = +12^\circ\text{C}$	$COP_d$	6.28	-
$T_{biv}$ =bivalent temperature	$P_{dh}$	8.067	kW		$T_{biv}$ =bivalent temperature	$COP_d$	2.27	-
$T_{OL}$ =operation temperature	$P_{dh}$	6.436	kW		$T_{OL}$ =operation temperature	$COP_d$	2.04	-
Bivalent temperature	$P_{biv}$	-7	°C					
Degradation co-efficient for heat pumps(**)								
	$C_{dh}$	0.25	-		Supplementary heater			
Power consumption in modes other than "active mode"					Supplementary heater			
Off mode	$P_{OFF}$	0.023	kW		Back-up heating capacity(*)	$e_{lbu}$	0.023	kW
Thermostat-off mode	$P_{TO}$	0.023	kW		Type of energy input			
Crankcase heater mode	$P_{CK}$	0.023	kW		Standby mode	$P_{SB}$	0.023	kW
Other items								
Capacity control	variable				For air-to-air heat pump: air flow rate, outdoor measured	-	6500	m³/h
Sound power level, outdoor	$L_{WA}$	73	dB					
GWP of the refrigerant		2088	kg CO <sub>2</sub> eq (100years)					
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(**)If $C_{dh}$ is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25								

**Cooling mode:**

Information requirements for air-to-air conditioners								
Model(s):SDV4-160EAA Test matching indoor units from2,non-duct:2×SDV4-45CAF* + 2×SDV4-36CAF*								
Outdoor side heat exchanger of air conditioner:air								
Indoor side heat exchanger of air conditioner:air								
Type:compressor driven								
If applicable:driver of compressor:electric motor								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	15.5	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	239.0	%
Declared cooling capacity for part load at given outdoor temperatures $T_j$ and indoor 27/19°C (dry/wet bulb)					Declared energy efficiency ratio or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures $T_j$			
$T_j=+35^\circ\text{C}$	$P_{dc}$	15.500	kW		$T_j=+35^\circ\text{C}$	$EER_d$	2.96	-
$T_j=+30^\circ\text{C}$	$P_{dc}$	10.891	kW		$T_j=+30^\circ\text{C}$	$EER_d$	4.63	-
$T_j=+25^\circ\text{C}$	$P_{dc}$	6.981	kW		$T_j=+25^\circ\text{C}$	$EER_d$	7.51	-
$T_j=+20^\circ\text{C}$	$P_{dc}$	5.118	kW		$T_j=+20^\circ\text{C}$	$EER_d$	10.96	-
Degradation co-efficient for air conditioners(*)								
	$C_{dc}$	0.25	-					
Power consumption in modes other than "active mode"								
Off mode	$P_{OFF}$	0.023	kW		Crankcase heater mode	$P_{CK}$	0.023	kW
Thermosat-off mode	$P_{TO}$	0	kW		Standby mode	$P_{SB}$	0.023	kW
Other items								
Capacity control	variable				For air-to-air air conditioner:air flow rate,outdoor measured	-	6500	$\text{m}^3/\text{h}$
Sound power level,outdoor	$L_{WA}$	73	dB					
GWP of the refrigerant		2088	kg CO <sub>2</sub> eq (100years)					
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(*)If $C_{dc}$ is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25								
Where information relates to multi-split air conditioners,the test result and performance data may be obtained on the basis of performance of the outdoor unit ,with a combination of indoor unit(s) recommended by the manufacturer or importer								

**Heating mode:**

Information requirements for air-to-air conditioners								
Model(s):SDV4-160EAA								
Test matching indoor units from2,non-duct:2×SDV4-45CAF* + 2×SDV4-36CAF*								
Outdoor side heat exchanger of air conditioner:air								
Indoor side heat exchanger of air conditioner:air								
Indication if the heater is equipped with a supplementary heater:no								
If applicable:driver of compressor:electric motor								
Parameters shall be declared for the average heating season,parameters for the warmer and colder heating seasons are optional								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	$P_{rated,h}$	17	kW		Seasonal space heating energy efficiency	$\eta_{s,h}$	142.6	%
Declared heating capacity for part load at indoor temperature 20°C and outdoor temperatures $T_j$					Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures $T_j$			
$T_j=-7^{\circ}C$	$P_{dh}$	10.407	kW		$T_j=-7^{\circ}C$	$COP_d$	2.13	-
$T_j=+2^{\circ}C$	$P_{dh}$	6.366	kW		$T_j=+2^{\circ}C$	$COP_d$	3.49	-
$T_j=+7^{\circ}C$	$P_{dh}$	4.324	kW		$T_j=+7^{\circ}C$	$COP_d$	5.42	-
$T_j=+12^{\circ}C$	$P_{dh}$	4.791	kW		$T_j=+12^{\circ}C$	$COP_d$	6.24	-
$T_{biv}$ =bivalent temperature	$P_{dh}$	10.407	kW		$T_{biv}$ =bivalent temperature	$COP_d$	2.13	-
$T_{OL}$ =operation temperature	$P_{dh}$	7.816	kW		$T_{OL}$ =operation temperature	$COP_d$	1.76	-
Bivalent temperature	$P_{biv}$	-7	°C					
Degradation co-efficient for heat pumps(**)								
	$C_{dh}$	0.25	-		Supplementary heater			
Power consumption in modes other than "active mode"					Supplementary heater			
Off mode	$P_{OFF}$	0.023	kW		Back-up heating capacity(*)	$e_{lbu}$	0.023	kW
Thermosat-off mode	$P_{TO}$	0.023	kW		Type of energy input			
Crankcase heater mode	$P_{CK}$	0.023	kW		Standby mode	$P_{SB}$	0.023	kW
Other items								
Capacity control	variable				For air-to-air heat pump:air flow rate,outdoor measured	-	6500	m³/h
Sound power level,outdoor	$L_{WA}$	73	dB					
GWP of the refrigerant		2088	kg CO <sub>2</sub> eq (100years)					
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**Cooling mode:**

Information requirements for air-to-air conditioners								
Model(s):SDV4-180EA Test matching indoor units from2,non-duct:4×SDV4-45CAF*								
Outdoor side heat exchanger of air conditioner:air								
Indoor side heat exchanger of air conditioner:air								
Type:compressor driven								
If applicable:driver of compressor:electric motor								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated cooling capacity	$P_{rated,c}$	17.5	kW		Seasonal space cooling energy efficiency	$\eta_{s,c}$	202.2	%
Declared cooling capacity for part load at given outdoor temperatures $T_j$ and indoor 27/19°C (dry/wet bulb)					Declared energy efficiency ratio or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures $T_j$			
$T_j=+35^\circ\text{C}$	$P_{dc}$	17.500	kW		$T_j=+35^\circ\text{C}$	$EER_d$	2.41	-
$T_j=+30^\circ\text{C}$	$P_{dc}$	11.784	kW		$T_j=+30^\circ\text{C}$	$EER_d$	4.50	-
$T_j=+25^\circ\text{C}$	$P_{dc}$	7.817	kW		$T_j=+25^\circ\text{C}$	$EER_d$	6.29	-
$T_j=+20^\circ\text{C}$	$P_{dc}$	5.203	kW		$T_j=+20^\circ\text{C}$	$EER_d$	7.20	-
Degradation co-efficient for air conditioners(*)								
	$C_{dc}$	0.25	-					
Power consumption in modes other than "active mode"								
Off mode	$P_{OFF}$	0.023	kW		Crankcase heater mode	$P_{CK}$	0.023	kW
Thermosat-off mode	$P_{TO}$	0	kW		Standby mode	$P_{SB}$	0.023	kW
Other items								
Capacity control	variable				For air-to-air air conditioner:air flow rate,outdoor measured	-	6500	$\text{m}^3/\text{h}$
Sound power level,outdoor	$L_{WA}$	74	dB					
GWP of the refrigerant		2088	kg CO <sub>2</sub> eq (100years)					
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(*)If $C_{dc}$ is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25								
Where information relates to multi-split air conditioners,the test result and performance data may be obtained on the basis of performance of the outdoor unit ,with a combination of indoor unit(s) recommended by the manufacturer or importer								

**Heating mode:**

Information requirements for air-to-air conditioners								
Model(s):SDV4-180EA Test matching indoor units from2,non-duct:4×SDV4-45CAF *								
Outdoor side heat exchanger of air conditioner:air								
Indoor side heat exchanger of air conditioner:air								
Indication if the heater is equipped with a supplementary heater:no								
If applicable:driver of compressor:electric motor								
Parameters shall be declared for the average heating season,parameters for the warmer and colder heating seasons are optional								
Item	Symbol	Value	Unit		Item	Symbol	Value	Unit
Rated heating capacity	$P_{rated,h}$	19	kW		Seasonal space heating energy efficiency	$\eta_{s,h}$	151.4	%
Declared heating capacity for part load at indoor temperature 20°C and outdoor temperatures $T_j$					Declared coefficient of performance or gas utilisation efficiency/auxiliary energy factor for part load at given outdoor temperatures $T_j$			
$T_j=-7^{\circ}C$	$P_{dh}$	10.238	kW		$T_j=-7^{\circ}C$	$COP_d$	2.42	-
$T_j=+2^{\circ}C$	$P_{dh}$	6.584	kW		$T_j=+2^{\circ}C$	$COP_d$	3.80	-
$T_j=+7^{\circ}C$	$P_{dh}$	4.181	kW		$T_j=+7^{\circ}C$	$COP_d$	5.05	-
$T_j=+12^{\circ}C$	$P_{dh}$	4.697	kW		$T_j=+12^{\circ}C$	$COP_d$	5.86	-
$T_{biv}$ =bivalent temperature	$P_{dh}$	10.238	kW		$T_{biv}$ =bivalent temperature	$COP_d$	2.42	-
$T_{OL}$ =operation temperature	$P_{dh}$	8.407	kW		$T_{OL}$ =operation temperature	$COP_d$	1.86	-
Bivalent temperature	$P_{biv}$	-7	°C					
Degradation co-efficient for heat pumps(**)								
	$C_{dh}$	0.25	-					
Power consumption in modes other than "active mode"					Supplementary heater			
Off mode	$P_{OFF}$	0.023	kW		Back-up heating capacity(*)	$e_{lbu}$	0.023	kW
Thermosat-off mode	$P_{TO}$	0.023	kW		Type of energy input			
Crankcase heater mode	$P_{CK}$	0.023	kW		Standby mode	$P_{SB}$	0.023	kW
Other items								
Capacity control	variable				For air-to-air heat pump:air flow rate,outdoor measured	-	6500	m³/h
Sound power level,outdoor	$L_{WA}$	74	dB					
GWP of the refrigerant		2088	kg CO <sub>2</sub> eq (100years)					
Contact details: Manufacturer: SINCLAIR Corp. Ltd., 1-4 Argyll St., London, UK info@sinclair-eu.com / www.sinclair-eu.com								
(**)If $C_{dh}$ is not determined by measurement then the default degradation coefficient of heat pumps shall be 0.25								